

## CLAIMS

1. Connection means comprising a coupling (1) defining an internal channel (3) having an end segment (7) possessing an insertion opening (6) for insertion of an endpiece (8) and provided with means for retaining the endpiece in leaktight manner therein, said means comprising an annular sealing element (11) that is axially compressible and that is mounted in the coupling to have one face serving as a bearing surface for a terminal face of the endpiece, and an annularly-shaped retaining element (18) that is elastically deformable in a radial direction and that is received in an inner groove (21) of the end segment in order to have an inner circumferential portion projecting through an opening of the inner groove so as to be received in an outer groove (24) of the endpiece, the connection means being characterized in that the inner groove has a concave frustoconical flank (22) beside the opening of the end segment to form means for shrinking the retaining element, and a convex frustoconical flank (23) on its side remote from the opening, which flank is spaced apart from the concave frustoconical flank by a distance such that the retaining element is received with clearance in the inner groove, and in that the terminal face of the endpiece and the outer groove thereof are spaced apart by a distance slightly greater than the distance between the face of the sealing element and the opening of the inner groove of the coupling.
2. Connection means according to claim 1, characterized in that the outer groove (24) of the endpiece (8) has a convex frustoconical flank beside a terminal face of the endpiece (8), said flank co-operating with the concave frustoconical flank of the inner groove of the coupling (1) to form an angle that is open towards the insertion opening.

3. Connection means according to claim 2, characterized in that the above-specified angle is about  $10^{\circ}$ .
4. Means according to any one of claims 1 to 3,
- 5 characterized in that the retaining element is a split ring (18) having chamfer-shaped ends (19) on the inside of the split ring.